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Correlation Between Clinical-Dermatoscopic and Histopathologic Diagnosis of Skin Tumors in Our Patients

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A B S T R A C T

In this study 103 patients with skin tumors were examined. Among them there were 43 (42%) male patients and 60 (58%) female patients. Working diagnosis was obtained by clinical examination using dermoscope. After excision of lesion, working diagnosis was compared to pathohistological diagnosis. In our study we used dermoscope Heine proper delta 10. The clinical-dermoscopic diagnosis included verrucae seborrhoicae in 26 (25.24%), fibropapilloma in 17 (16.5%), naevus pigmentosus in 9 (8.79%), naevus dysplasticus in 4 (3.88%), fibroma molle in 8 (7.76%), Mb. Bowen in 1 (0.97%), basal cell carcinoma in 7 (6.79%), squamous cell carcinoma in 6 (5.82%), haemangiofibroma in 1 (0.97%), haemangioma in 3 (2.91%), keratosis actinica in 5 (4.85%), melanoma malignum in 6 (5.82%), naevus fibromatosus in 2 (1.94%) cases and naevus blue in 1 (0.97%), naevus traumatisatus in 1 (0.97%), verruca vulgaris in 1 (0.97%), lymphocytoma in 1 (0.97%), naevus verrucosus in 1 (0.97%), lentigo solaris in 2 (1.94%) and Reed nevus in 1 (0.97%) case. Dermoscopic diagnosis were conformable with pathohistological diagnosis in 75 cases (72.82,%). We presumed that dermatoscoping obtains correct diagnosis of skin tumors.

Key words: *dermatoscopy, skin tumors, correlation*

Introduction

Clinical and dermatoscopic diagnoses are always challenging with pathohistological diagnosis. Dermatoscopy allows correct diagnosis in contrast to simple clinical eye examination of skin lesion. It is important to avoid unnecessary excisions of pigmented melanocytic lesions, and to excise melanocytic lesions if suspected for melanoma. Today we use dermatoscopy in diagnosing melanocytic and nonmelanocytic lesions, skin tumors as well as inflammatory skin diseases like lichen ruber and psoriasis vulgaris.

It is important to emphasize that dermatoscopy has its limitations especially when diagnosing early and featureless melanoma malignum[1]. In our study dermatoscopy was used for diagnosis skin lesions, as well as evaluation of clinical appearance and anamnesis. The aim of this study was to examine percentage of correct diagnosis. In our department we have been performing dermatoscopy since 1993.

Materials and Methods

The study included 103 patients with skin tumors, 43 (42%) male and 60 (58%) female patients. We used dermoscope Heine proper delta 10 in our investigation. After clinical and dermatoscopic examinations, biopses or excisions of the skin tumors were performed, and pathohistological diagnosis were obtained at department of dermatovenereology. In this study skin lesions were not only pigmented lesions, but benign and malignant tumors like melanoma also. Simple statitical analysis like total count number of tumors and its percentages were performed in this study.

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Results

The clinical-dermatoscopic diagnosis are shown in Table 1. Dermatoscopic diagnosis were conformable with pathohistological diagnosis in 75 cases (72.82%) out of 103. The highest conformation was in diagnosing melanoma, in 5 out of 6 cases (83.3%). In 78 cases out of 103 (75.85%) benign tumors were diagnosed, and in 25 cases out of 103, malignant tumors were diagnosed (24.25%).

Discussion and Conclusion

In our study, the confirmation in diagnosing skin lesions by dermatoscopy and pathohistology was 72.82%. Other authors found higher percentage of 82.3% in diagnosing melanocytic lesions using ABCD rule and 7-point check list[2] that was demonstrated in study with 102 Clark's naevi and 96 thin melanomas. In our study 103 patients with skin tumors were included. Among them 75.85% were diagnosed benign tumors as expected, respectively. Non-melanoma skin cancers are the most common malignant tumors and incidence has been increasing over the past several decades worldwide[13]. In other studies of pigmented skin lesions, 91.3% dermatoscopical diagnosis were confirmed by histopathology[3]. In the same study, histopathogy was confirmable in 83% when diagnosing melanoma, which is similar to the results obtained in our investigation, where we found 83.3% correct diagnosis. Diagnosis of melanoma in vivo by using dermatoscopy that was confirmable with histopathology was 96.1%, in comparison to dermatoscopy of melanoma based on photographic slides, where accuracy was 85%[4].

TABLE 1
NUMBER AND PERCENTAGE OF VARIOUS CLINICAL-DERMATOSCOPIC DIAGNOSES

1.Verrucae seborrhoicae	26	(25.24%)
2. Fibropapiloma	17	(16.5%)
3. Naevus pigmentosus	9	(8.79%)
4. Fibroma molle	8	(7.76%)
5. Basal cell carcinoma	7	(6.79%)
6. Melanoma	6	(5.82%)
7. Squamous cell carcinoma	6	(5.82%)
8. Keratosis actinica	5	(4.85%)
9. Naevus dysplasticus	4	(3.88%)
10. Haemangioma	3	(2.91%)
11. Naevus fibromatosus	2	(1.94%)
12. Lentigo solaris	2	(1.94%)
13. Naevus blue	1	(0.97%)
14. Naevus traumatisatus	1	(0.97%)
15. Verruca vulgaris	1	(0.97%)
16. Mb. Bowen	1	(0.97%)
17. Lymphocytoma	1	(0.97%)
18. Naevus verrucosus	1	(0.97%)
19. Haemangiofibroma	1	(0.97%)
20. Reed naevus	1	(0.97%)

New technics obtained more accurate results. Confocal laser scanning microscopy obtains correct diagnosis of melanoma in 96.3%, 98.89% in diagnosing benign lesions and 100% in diagnosing basal cell carcinoma[5]. Promising results have also been described in reflectance confocal dermatoscopy of melanocytic lesions[9], as well as for optical coherence tomography[10].

There is one study that demonstrated diagnosing of actinic keratosis by clinical examination only with accuracy of 91%[6], but if differential diagnosis includes squamous cell carcinoma, dermatoscopy is needed for better distinction. According to the experience in dermatoscopy, experts obtained more accurate results then non experts[7], which was also demonstrated, respectively. Some authors investigated dermatoscopic features in basall cell carcinoma and found that ulceration, grey-blue ovoid nests, grey-blue globules, leaf-like areas and arborizing vessels correlate with histopathologic counterparts[8]. In one of the last studies about clinical and pathohistologic diagnosis conformation was weak (kp=0.388) in comparison to dermatoscopic and pathohistologic diagnosis where conformation was moderate (kp=0.52)[11]. Some authors established 7 rules for correct biopsy due to dermatoscopy[12]:

1) dermatoscopy should not be used only for suggestive lesions
2) biopsy lesions missing clinic-dermatoscopic correlation
3) biopsy lesions with unspecific pigment pattern
4) biopsy lesions with spitzoid features
5) biopsy lesions with extensive regression features
6) in the case of multiple nevi, biopsy lesions changing after short-term follow up
7) biopsy pink lesions with an atypical vascular pattern.

In conclusion we can confirm that new technics allow diagnosis of skin tumors as well as inflammatory skin diseases. Maybe in future new technics will develop that would allow us to diagnose skin tumors in pathohistological view with 100% accuracy. Meantime, dermatoscopy allows correct diagnosing of skin tumors with some limitations in detecting early melanoma, which, based on todays knowledge, is indistinguishable from benign melanocytic lesions.

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KORELACIJA IZMEĐU KLINIČKO-DERMATOSKOPSKIH I PATOHISTOLOŠKIH DIJAGNOZA KOŽNIH TUMORA U NAŠIH BOLESNIKA

SAŽETAK

U ovoj studiji izabrali smo 103 bolesnika s kožnim tumorima, 43 (42%) muškaraca i 60 (58%) žena. Dijagnoze smo postavili kliničkim pregledom, dermatoskopom, a potom je učinjena biopsija ili totalna ekcizija tumora, te su uspoređene kliničko-dermatoskopske s patohistološkim dijagnozama. Koristili smo dermatoskop Heine proper delta 10 u našem istraživanju. Kliničko dermatoskopske dijagnoze su bile seboroične veruke 26 (25,24%), fibropapiloma 17 (16,5%), nevus pigmentosus 9 (8,79%), fibroma molle 8 (7,76%), bazalioma 7 (6,79%), melanoma 6 (5,82%), spinalioma 6 (5,82%), keratosis actinica 5 (4,85%), nevus dysplasticus 4 (3,88%), haemangioma 3 (2,91%) nevus fibromatosus 2 (1,94%), lentigo solaris 2 (1,94%), nevus blue 1 (0,97%), nevus traumatisatus 1 (0,97%), verruca vulgaris 1 (0,97%), MB.Bowen 1 (0,97%), lymphocytoma 1 (0,97%), nevus verrucosus 1 (0,97%), haemagiofibroma 1 (0,97%), Reed nevus 1(0,97%). Dokazali smo točnost dermatoskopskih i histopatoloških dijagnoza u 75 od 103 slučaja (72,82%) i zaključili da dermatoskopija olakšava dijagnozu kožnih tumora.